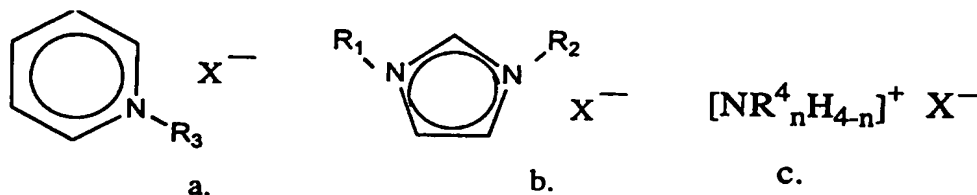


JC17 Rec'd PCT/PTO 08 SEP 2005

WHAT IS CLAIM

1. A method for concentration of fine particles dispersed in a dispersion comprising, adding an ionic liquid, which does not dissolve substantially a dispersing medium of said dispersion, to said dispersion containing fine particles, transferring said fine particles from said dispersion to said ionic liquid and concentrating said fine particles into said ionic liquid.
2. The method for concentration of fine particles dispersed in a dispersion of claim 1, wherein the amount of the ionic liquid b mM to be added to 10mL of the dispersion containing said fine particles by a mM dispersing concentration is in the range so as the ratio a/b to be at least 0.05.
3. The method for concentration of fine particles dispersed in a dispersion of claim 1, wherein the ionic liquid is an ionic liquid which is liquid at ordinary temperature.
4. The method for concentration of fine particles dispersed in a dispersion of claim 3, wherein the ionic liquid is an organic ionic liquid.
5. The method for concentration of fine particles dispersed in a dispersion of claim 4, wherein the organic ionic liquid is selected from the group consisting of compounds represented by following formulae 1,



formulae 1

wherein, R_3 and R^4 are an alkyl group of carbon number 1-7, n is an integer of 1-3, R_1 is an alkyl group which can possess a substitution group of carbon number 1-7, X^- is selected from the group consisting of PF_6^- , BF_4^- , NO_3^- , $(\text{CF}_3\text{SO}_3)_2\text{N}^-$, TFSI^- , Cl^- and SO_3H^- .

6. The method for concentration of fine particles dispersed in a dispersion of claim 1, wherein the ionic liquid to be added to the dispersion containing fine particles is an ionic liquid which is liquid at ordinary temperature and the amount of the ionic liquid b mM to be added to 10mL of the dispersion containing said fine particles by a mM dispersing concentration is in the range so as the ratio a/b to be at least 0.05.

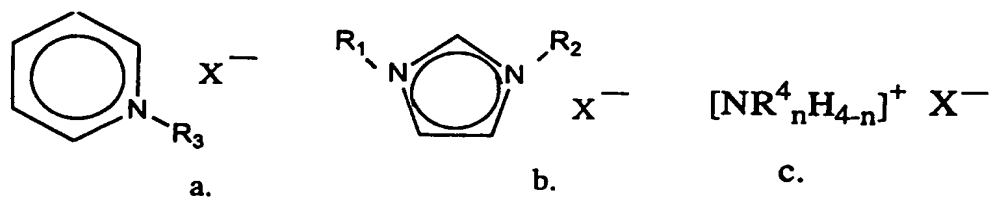
7. The method for concentration of fine particles dispersed in a dispersion of claim 6, wherein the ionic liquid is an organic ionic liquid.

8. The method for concentration of fine particles dispersed in a dispersion of claim 7, wherein the organic ionic liquid is selected from the group consisting of compounds represented by above mentioned formulae 1.

9. The method for concentration of fine particles dispersed in a dispersion of claim 2, wherein the ionic liquid is an ionic liquid which is liquid at ordinary temperature.

10. The method for concentration of fine particles dispersed in a dispersion of claim 9, wherein the ionic liquid is an organic ionic liquid.

11. The method for concentration of fine particles dispersed in a dispersion of claim 10, wherein the organic ionic liquid is selected from the group consisting of compounds represented by following formulae 1,



formulae 1

wherein, R_3 and R^4 are an alkyl group of carbon number 1-7, n is an integer of 1-3, R_1 is an alkyl group which can possess a substitution group of carbon number 1-7, X^- is selected from the group consisting of PF_6^- , BF_4^- ,

NO_3^- , $(\text{CF}_3\text{SO}_3)_2\text{N}^-$, TFSI^- , Cl^- and SO_3H^- .